National Park Service Haleakala National Park U.S. Department of the Interior

Sliding Sands Trail

The trail descends into the eruption zone, where fountaining lava created a relatively recent series of cinder cones. From a distance the cinder desert appears devoid of life. But down in the basin unusual species of plants, birds, and insects—often hidden among the rocks—have adapted to the summit's extremes.

For hikers, the trail is also an exercise in adaptation. Weather, solar radiation, and the effects of altitude are more intense here. The walk down can be deceptively easy; allow twice as much time for the steep return ascent.



'Ahinahina (silversword) has a dense covering of silvery hairs to conserve moisture and protect the plant from highelevation sun.

Safety

Be prepared for cold, wet, and wind. Dress in warm layers, bring raingear and wear sturdy footwear.

Be alert for symptoms of altitude sickness: headache, nausea, dizziness, shortness of breath.

Protect yourself from sun. Cover up, and use sunscreen, hat, sunglasses.

Carry and drink lots of water.

Please DO NOT

stray off designated trails

Off-trail hiking can kill unseen plant and animal life.

collect or move anything, including rocks (possibly animals' homes).

leave anything behind, including orange peels (decomposition is slow).

approach or feed nene



'Ua'u (dark-rumped petrel) depends on the summit environment for nesting. This endangered seabird lays a single egg

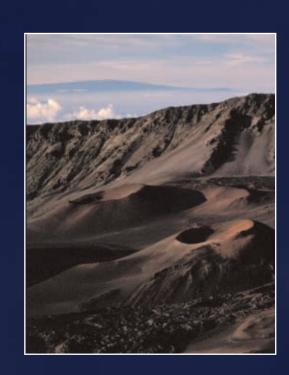




he park is a red desert of cinder cones; the park is a lush valley below a waterfall. Stretching from sea level to the volcano's summit, Haleakala National Park climbs through dramatically different climates and eco-zones. Yet its contrasting worlds are vitally connected. Mist near the summit feeds rainforest and coastal waterfalls.

While touring the park, be prepared for widely varying weather conditions, from sleet to intense sun. Along short trails be alert for unusual birds, plants, and animals adapted to the island's extremes. And throughout the park, look for remnants of the original Hawaii, preserved like an ahupua'a — the traditional Hawaiian land division that extended upslope from the sea.

Summit District



Overlooks offer views of volcanic terrain and panoramas of Maui and neighboring islands.

Trails enter the cinder desert or wind through subalpine shrubland that attracts rare birds.



Silversword Survival

The summit environment appears hostile to plants. Yet in this rocky, wind-blasted desert, native silversword are able to thrive—when free of outside threats. Here at Kalahaku, many silversword grow naturally; some were planted in the 1970s to boost chances of survival.

In the late 1800s silversword were abundant:

thousands of silversword ...making the hillside look like ...moonlight

Isabella Bird, 1890

Threats

While the fence protects plants from alien deer and goats, the most serious threats to silversword are too small to fence out. To cross-pollinate, silversword depend on the native yellow-faced bee and flightless moth. But alien yellowjackets and Argentine ants are preying on the pollinators—threatening the silversword's long-term survival.



rgentine ant



Yellowjacket wasp



Walking off designated

Survival Skills

Despite harsh conditions, silversword can live for up to fifty years. The plant expends all its energy producing one spectacular, blooming stalk—then dies. Wind disperses the seeds and the cycle begins again.

Silversword's dense, silvery hairs reflect intense sunlight and help conserve moisture. A strong taproot secures the plant in high wind

Silversword is an **endemic**—it grows on the slopes of Haleakala and nowhere else in the world.

Ranch Wall

The stacked volcanic rocks are from recent history, when cattle roamed across the Haleakala landscape. Extending from Hosmer Grove to the summit, this wall guided herds up and down the mountain during cattle drives.

Cattle had a dramatic impact on native vegetation.
With the establishment of the park, silversword and subalpine shrubland began to recover here. Cows disappeared from the summit, but ranch life continues to thrive in Paneolo (cowboy) country on the slopes below the park.

By 1960 more than two million acres in Hawaii were used for cattle grazing, mostly in the cooler uplands.

Whether ranch wall or park fence, boundaries delineate contrasts in land use philosophies, between taming a wilderness landscape or preserving it in its original state.



You Are Here

H_{alemau} Tra

The trail is dangerous...when you have cattle like that, some of those sharp turns and steep banks, and it drops off and all that loose gravel... you don't know what is going to happen.

Retired ranch foreman Johnny Sakamoto, describing a cattle drive down Halemau'u Trail

The best pastures were in the summit basin.

Halemau'u Trail

Halemau'u Trail leads to the rim overlooking the summit basin. The first mile passes through subalpine shrubland, the highest vegetation zone in the park. From there the trail switchbacks down a thousand feet to wilderness grassland, then crosses a volcanic landscape of cinder cones and lava fields.

Though the shrubland lacks dramatic vistas, it is ideal habitat for the 'apapane (honeycreeper) and other endangered native birds. Once threatened by grazing cattle, pigs, and goats, this remnant of original Hawaii is essential for the birds' survival.

Safety

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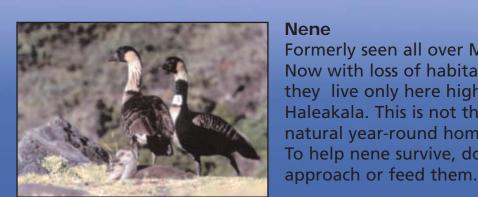
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'Apapane frequent shrubland for the nectar of the flowering mamane.



Formerly seen all over Maui. Now with loss of habitat, they live only here high on Haleakala. This is not their natural year-round home. To help nene survive, do not



Headwaters of Waikamoi

The native forest of 'ohi'a trees in the gulch ahead stands at the top of a watershed that fans down the volcano slope to the ocean. Out of site below are steep streams, rainforest, and waterfalls—visible on the drive to Hana.

The health of these headwaters affects everything downstream. When native forests have been cut at this elevation, severe erosion and runoff smother taro fields and coral reefs.

YOU ARE HERE

Waikamoi Gulch "Waikamoi" means "water of the moi taro."

Running water is rarely visible. Here the streams are temporary. The vegetation acts as a sponge, capturing moisture from low clouds and fog.



Ke'anae is home to many native plants and animals which are all vital to the health of the watershed.

> Steep and narrow streams produce many dramatic waterfalls along the road to Hana

> > Wetlands were turned into lo'i or taro patches, using water from the streams above.



White Pine

Pinus strobus



Kipahulu District

The summit of Haleakala is an island atop an island, with its own distinctive climate and habitats. Its cinder desert is sometimes frozen and seemingly barren. Yet a variety of creatures and unique plants like the silversword have adapted to the summit's extremes.

Despite the contrasts to Maui's seashore, the summit is connected to the rest of the island in critical ways. The upper slopes nourish the watershed for Kipahulu's rainforest and dramatic streams and waterfalls. The summit also preserves portions of the original Hawaii, including native vegetation and evidence of the early inhabitants.

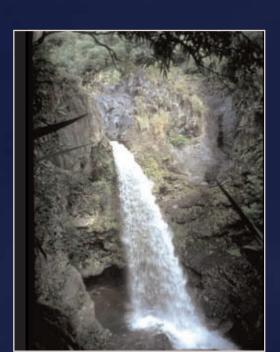




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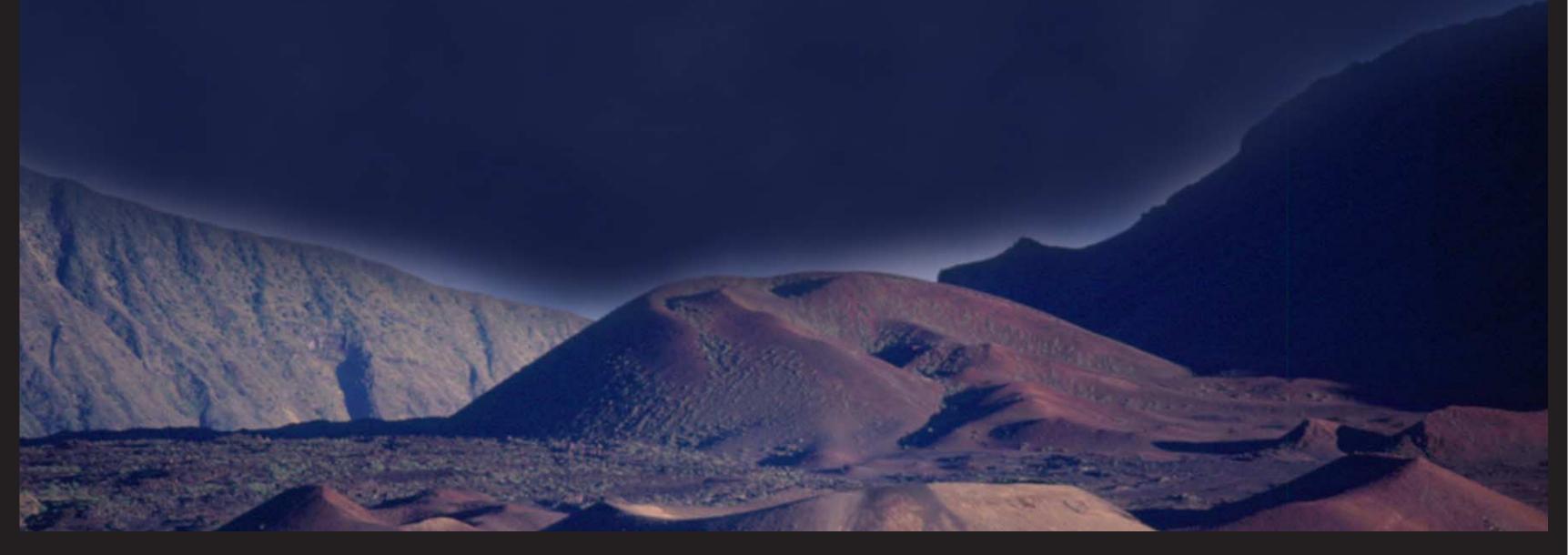
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Kipahulu District



Trails skirt a dramatic coastline or follow pooling streams to Waimoku Falls at the head of a densely forested valley.

With echoes of old Hawaii, Kipahulu preserves foundations of historic fishing villages and a demonstration taro farm.



Kaupo Trail

Climbing more than 6,000 feet from coastal pasture to summit basin, Kaupo Trail is a vertical journey through contrasting climates and ecosystems, from recovering forest to cinder desert. The hike is also a journey through a drastically altered landscape. Ranchers once used this trail for cattle drives. In some areas, particularly near the park boundary, feral goats completely stripped the terrain of native vegetation.

But along the trail there is also evidence that park management is taking steps to restore the original scene. Patches of blue-dyed grass have been treated to remove alien species and allow native shrubs and trees to reseed. Where the ground was once bare and rocky, o'hia forests are beginning to flourish, attracting native birds.



Safety

The trail is strenuous. Steep grade and loose rocks.

Be prepared for extreme weather changes.

Be alert for symptoms of altitude sickness: headache, nausea, dizziness, shortness of breath.

Protect yourself from sun. Cover up, and use sunscreen, hat, sunglasses.

Carry plenty of water. No potable water available along trail.



Please DO NOT

stray from designated trails.

Off-trail hiking damages critical habitat and can be dangerous (grasses can disguise lava fields).

build fires on park or ranch land. Fire danger is high.

leave anything behind. You will be entering a designated Wilderness Area. Help protect the plants and animals that live there.

feed or approach nene

